

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

INVESTIGATION OF KENTUCKY UTILITIES)	
COMPANY'S AND LOUISVILLE GAS &)	
ELECTRIC COMPANY'S RESPECTIVE NEED)	CASE NO.
FOR AND COST OF MULTIPHASE LANDFILLS)	2015-00194
AT THE TRIMBLE COUNTY AND GHENT)	
GENERATING STATIONS)	

ORDER

By Order issued on June 16, 2015, the Commission initiated this case to investigate the need for, and costs of, multiphase landfills located at Louisville Gas and Electric Company's ("LG&E") and Kentucky Utilities Company's ("KU") (jointly "LG&E/KU" or "Companies") Trimble County and Ghent Generating Stations. In Case No. 2009-00197,¹ KU was awarded Certificates of Public Convenience and Necessity ("CPCN") to construct the Ghent and Trimble County Landfills. In Case No. 2009-00198,² LG&E was awarded a CPCN to construct the Trimble County Landfill jointly with KU. Since the Commission's issuances of these CPCNs in 2009, LG&E/KU have kept the Commission informed of the progress of construction as described in more detail in the Background section of this Order. On May 20, 2015, Sterling Ventures, LLC

¹ Case No. 2009-00197, *Application of Kentucky Utilities Company for Certificates of Public Convenience and Necessity and Approval of Its 2009 Compliance Plan for Recovery by Environmental Surcharge* (Ky. PSC Dec. 23, 2009).

² Case No. 2009-00198, *Application of Louisville Gas and Electric Company for a Certificate of Public Convenience and Necessity and Approval of Its 2009 Compliance Plan for Recovery by Environmental Surcharge* (Ky. PSC Dec. 23, 2009).

("Sterling Ventures"), a company that operates an underground limestone mine near Verona, Kentucky, filed a formal complaint alleging that depositing excess gypsum from the Ghent Generating Station in its mine would be a lower-cost option than constructing the Ghent Landfill. In addition, Sterling Ventures' complaint alleged that depositing coal combustion residuals ("CCR") in its limestone mine would result in significant cost savings as compared to the new Trimble County Landfill. Sterling Ventures points out that the costs for the two landfills have increased significantly from the originally proposed costs. Accordingly, Sterling Ventures requested that the Commission revoke LG&E/KU's CPCN to construct the Trimble County Landfill and to limit KU's recovery of environmental costs associated with the Ghent Landfill.

On May 22, 2015, LG&E/KU tendered a joint application in Case No. 2015-00156³ ("Joint Application") requesting a declaratory order affirming their authority to construct all phases of the Trimble County Landfill and related facilities and to recover the cost of the first phase of that landfill through their environmental surcharge mechanisms. In their Joint Application, LG&E/KU detailed significant delays they have encountered in securing the necessary permits to construct the Trimble County Landfill. However, LG&E/KU contend that they will obtain all of the necessary permits soon and assert that the modified design of the Trimble County Landfill is in the same location as originally proposed and continues to be the least-cost alternative solution for the continued operation of the Trimble County Generating Station.

³ Case No. 2015-00156, *Joint Application of Louisville Gas and Electric Company and Kentucky Utilities Company for Declaratory Order Concerning Construction of the Trimble County Landfill and Related Cost Recovery* (Ky. PSC May 22, 2015).

Pursuant to our June 16, 2015 Order, we established this investigation to examine all of the issues raised in both Sterling Ventures' complaint and LG&E/KU's Joint Application regarding the need for, and the cost of, the multi-phase Trimble County and Ghent Landfills. Pursuant to the June 16, 2015 Order, the record of Case No. 2015-00156 and Sterling Ventures' complaint were physically consolidated with this case, and Case No. 2015-00156 was closed and removed from the Commission's docket. Kentucky Industrial Utility Customers, Inc. ("KIUC"), which had filed for and was granted intervention in Case No. 2015-00156, was made a party to the instant case. After this matter was initiated, the Attorney General of the Commonwealth of Kentucky, by and through his Office of Rate Intervention ("AG"), filed for and was granted intervention in this case. At the request of LG&E/KU, an informal conference was conducted on June 19, 2015, for the purpose of discussing the issues and establishing a procedural schedule. Pursuant to an Order issued on July 2, 2015, a procedural schedule was established providing for two rounds of discovery and the filing of direct and rebuttal testimonies. A second informal conference was conducted at the request of LG&E/KU on July 29, 2015, in order to discuss the simplification or clarification of issues or any other matter that would aid in the handling and disposition of the case. A formal evidentiary hearing was held on September 14-15, 2015. LG&E/KU and Sterling Ventures submitted responses to post-hearing data requests on September 24, 2015. LG&E/KU, Sterling Ventures and KIUC submitted post-hearing briefs on October 16, 2015. Lastly, LG&E/KU submitted responses to Commission Staff's post-hearing data requests on November 2, 2015. The matter now stands submitted for a decision. For the reasons discussed below, the Commission will affirm the CPCNs for the first phase

of the Trimble County and Ghent Landfills and the recovery of those costs through LG&E/KU's environmental surcharge mechanisms.

BACKGROUND

In Case Nos. 2009-00197 and 2009-00198, the Commission, among other things, granted KU and LG&E CPCNs to construct the Ghent and Trimble County Landfills. Although KU and LG&E identified in their respective applications that the Ghent Landfill project would be constructed in three phases and the Trimble County Landfill would be constructed in four phases, the Final Orders in Case Nos. 2009-00197 and 2009-00198 mentioned only the costs of the first phase for each of the landfill projects.⁴ As approved in Case Nos. 2009-00197 and 2009-00198, the projected cost for the first phase of the Ghent Landfill was \$204 million, and the total projected cost for the first phase of the Trimble County Landfill was \$94 million, with LG&E/KU being jointly responsible for \$70.5 million of that total amount because, on a combined basis, they own 75 percent of the Trimble County Generating Station.

With respect to the Trimble County Landfill, LG&E/KU state that they have continued with engineering and permitting activities since obtaining the CPCN to construct the landfill.⁵ LG&E/KU note that they have obtained a permit from the U.S. Army Corps of Engineers for a nationwide permit for monitoring wells, and a bridge

⁴ See Case No. 2009-00197, *Kentucky Utilities Company* (Ky. PSC Dec. 23, 2009), Order at 3–4. See also Case No. 2009-00198, *Louisville Gas and Electric Company* (Ky. PSC Dec. 23, 2009), Order at 2–3.

⁵ See LG&E/KU's Joint Application at 8, which was physically consolidated into the instant matter, at 8. See also Direct Testimony of John N. Voyles, Jr. ("Voyles Testimony") at 5.

permit from the Kentucky Transportation Cabinet.⁶ By the end of 2015, the Companies anticipate obtaining a site permit under Section 404 of the federal Clean Water Act from the U.S. Army Corps of Engineers and a Section 401 Water Quality Certificate from the Kentucky Division of Water.⁷ By the end of the second quarter of 2016, LG&E/KU expect to receive a landfill permit from the Kentucky Division of Waste Management and a dam safety permit and a flood plain permit from the Kentucky Division of Water.⁸ LG&E/KU anticipate applying for a revised Title V Air Permit from the Kentucky Division of Air Quality in the first quarter of 2017.⁹ LG&E/KU note that the revised Title V is not needed to begin construction of the Trimble County Landfill, but will be required in order for the Companies to operate the landfill before it goes into service in 2018.¹⁰

LG&E/KU have also engaged in construction-related activities for the Trimble County Landfill, including purchasing additional land, fencing the perimeter of the landfill site, installing a fly-ash barge-loading system, relocating the station's helicopter pad, and installing a telecommunications tower.¹¹ To date, LG&E/KU have expended approximately \$24.4 million on engineering, permitting and construction activities at the Trimble County Landfill.¹²

⁶ LG&E/KU's Joint Application, Exhibit 3.

⁷ *Id.*

⁸ *Id.*

⁹ *Id.*

¹⁰ *Id.* at 8.

¹¹ *Id.* at 9.

¹² *Id.*

On November 4, 2010, representatives from LG&E/KU met with Commission Staff and the AG to discuss the impact of the U.S. Environmental Protection Agency's then-proposed Disposal of Coal Combustion Residuals from Electric Utilities rule ("CCR Rule") on the Companies' environmental compliance plans.¹³ At that meeting, LG&E/KU informed attendees that the projected cost associated with the phase one construction of the Trimble County Landfill and the Ghent Landfill had increased by over \$56 million¹⁴ and \$98 million, respectively, both due primarily to unanticipated design revisions to the coal combustion residual treatment and transport ("CCRT") system at each of the landfills.¹⁵ Thus, as of 2010, the projected cost of LG&E/KU's share of the first phase of the Trimble County Landfill was \$126.5 million and KU's cost of the first phase of the Ghent Landfill was approximately \$303 million.

LG&E/KU met again with Commission Staff and the AG on June 14, 2013, to discuss, among other things, the status of the subject landfills.¹⁶ At the 2013 meeting, LG&E/KU provided updates on the status of the Ghent Landfill, noting that the project was progressing significantly on the landfill itself as well as the CCRT facility and that the estimated cost was unchanged from the November 4, 2010 meeting.¹⁷ LG&E/KU also provided updates on the status of the Trimble County Landfill, noting that the landfill was experiencing permitting difficulties with the Kentucky Division of Waste Management due to the discovery of a karst feature located within the footprint of the

¹³ *Id.*, Exhibit 4 at 1–20.

¹⁴ This amount reflects LG&E/KU's 75 percent share of the cost increase.

¹⁵ LG&E/KU's Joint Application, Exhibit 4 at 1–20.

¹⁶ *Id.*, Exhibit 4 at 21–52.

¹⁷ *Id.*

landfill design. Due to the presence of certain organisms within the karst feature, it was subject to protection under the Kentucky Cave Protection Act.¹⁸ LG&E/KU noted at the meeting that it was continuing to evaluate possible alternative design layouts to avoid the karst feature, with a focus on maintaining the same storage capacity as originally designed, minimizing the cost of the landfill, and complying with environmental regulations.¹⁹ LG&E/KU further noted that there was still a need for an on-site landfill, and that an on-site landfill remained the least-cost means of meeting long-term CCR disposal needs for the Trimble County Generating Station.²⁰

LG&E/KU met with Commission Staff and the AG for a third time on February 5, 2015, regarding the Trimble County Landfill.²¹ LG&E/KU reiterated at this meeting that the long-term CCR storage needs at the Trimble County Generating Station had not changed and that constructing the CCRT and an on-site landfill remained the least-cost option.²² LG&E/KU noted that the final design of the on-site landfill had been completed to avoid the karst feature and indicated that the projected cost for phase one of the Trimble County Landfill was now \$321.9 million.²³ This additional cost increase was driven primarily by the permitting delays, the redesigning of the landfill to address the karst feature, lessons learned from the Ghent CCRT, and additional engineering and

¹⁸ *Id.*

¹⁹ *Id.*

²⁰ *Id.*

²¹ *Id.* at 53–85.

²² *Id.*

²³ *Id.*

permitting efforts and fees.²⁴ LG&E/KU also provided an updated economic analysis (“February 2015 Analysis”) that evaluated the cost of an on-site landfill as compared to an off-site landfill under a number of generation and beneficial use scenarios.²⁵ The off-site alternative cost assumptions reflected Sterling Ventures’ proposal.²⁶ The February 2015 Analysis showed that construction of the Trimble County Landfill was between \$156 million (low generation/beneficial use) and \$217 million (high generation/no beneficial use) lower than the off-site/Sterling Ventures alternative.²⁷ Lastly, LG&E/KU advised that the Ghent CCRT had been completed in December 2014 and that phase one of the Ghent Landfill is in operation²⁸ at a cost of \$341 million.²⁹

LG&E/KU'S ARGUMENTS

LG&E/KU contend that the Trimble County Landfill and the Ghent Landfill are still needed for the continued operation of the Companies’ Trimble County Generating Station and Ghent Generating Station. Although the cost of the two landfills has increased, LG&E/KU also contend that, based on its extensive economic evaluations, the Trimble County Landfill and the Ghent Landfill remain the least-cost feasible means by which to dispose of the CCR generated by those two generating stations. LG&E/KU argue that they thoroughly evaluated the subject landfills against numerous on-site and

²⁴ *Id.*

²⁵ *Id.*

²⁶ Voyles Testimony at 8.

²⁷ LG&E/KU’s Joint Application, Exhibit 4 at 53–85. Note that the updated economic analysis presented at the February 5, 2015 meeting was based on the total cost of the projects and not LG&E/KU’s 75 percent share.

²⁸ See September 14, 2015 Hearing Video, Testimony of John N. Voyles at 16:10:36.

²⁹ See Case No. 2014-00371, *Application of Kentucky Utilities Company for an Adjustment of Its Electric Rates* (Ky. PSC filed Nov. 26, 2014), Application at Tab 16, Attachment I at 226 of 272.

off-site alternatives, including Sterling Ventures' site, and against retiring the Trimble County Generating Station and replacing the capacity with new natural gas combined-cycle units.³⁰

As to the Ghent Landfill, KU pointed out that the evaluation of that landfill as part of its 2009 Environmental Compliance Plan consisted of identifying 42 potential alternatives, factoring variables such as storage and CCR transport methods, site locations, and transmission line relocation needs.³¹ As a result of its study, KU narrowed its evaluation to four on-site alternatives and one off-site commercial landfill alternative for further consideration to meet the long-term storage needs at the Ghent Generating Station.³² The Ghent Landfill was ultimately identified as the lowest-cost alternative, with the off-site option being \$413 million less favorable on a present value revenue requirement ("PVRR") basis.³³ Given that the Ghent Landfill was economically favorable by a wide margin, KU contends that the increases in cost of phase one of the Ghent Landfill did not alter the ultimate conclusion that obtaining a CCR storage solution was favorable to retiring the units and replacing the capacity. With respect to Sterling Ventures' proposal of disposing all of the gypsum from the Ghent Generating Station in its limestone mine for \$10.95 per ton, KU states that its economic analysis revealed that the Ghent Landfill was \$93 million less than Sterling Ventures' offer on a

³⁰ Direct Testimony of David S. Sinclair ("Sinclair Testimony") at 7.

³¹ Voyles Testimony at 4.

³² *Id.*

³³ See Case No. 2009-00197, *Kentucky Utilities Company* (Ky. PSC filed June 30, 2009), Application, Direct Testimony of Charles R. Schram, Exhibit CRS-3 at 19 of 37.

net PVRR basis.³⁴ KU noted that the capital cost savings associated with Sterling Ventures' proposal are more than offset by Sterling Ventures' cost to backhaul gypsum and dispose of it in its mine.³⁵

In response to Sterling Ventures' request that the Commission disallow environmental cost recovery for the Ghent Landfill for those costs associated with the gypsum-specific components of the CCRT and related operation and maintenance expenses, KU contends that the CCRT is a necessary and vital component to the operations of the Ghent Landfill and the Trimble County Landfill. The CCRT is required to treat, dewater, and prepare the CCR for transport to a facility for disposal regardless of whether the disposal site is an onsite landfill or an off-site commercial landfill, or whether the CCR is loaded for beneficial use.³⁶ According to KU, Sterling Ventures' contention is that KU did not have to construct the gypsum portions of the CCRT because Sterling Ventures would have removed the gypsum directly from the Ghent gypsum stack. KU counters that it would not have been prudent to build a CCRT that could not transport and treat all CCR, including gypsum—more of which is created during the coal-fired generation process than fly ash and bottom ash.³⁷ As KU noted in Case No. 2009-00197, the CCRT was necessary to manage the transport of CCR in order to address fugitive dusting concerns associated with the materials, which is particularly prudent now that the CCR Rule recommends conditioning all types of CCR

³⁴ Sinclair Testimony at 3–4.

³⁵ *Id.*

³⁶ Rebuttal Testimony of John N. Voyles, Jr. (“Voyles Rebuttal”) at 6.

³⁷ Voyles Rebuttal at 8.

as a dust-control measure.³⁸ In addition, KU noted that Sterling Ventures wrongly assumed that it could remove and haul gypsum from the Ghent gypsum stack. In fact, the gypsum stack is nearing capacity and is likely to be closed as a result of the CCR Rule.³⁹ Lastly, citing to Case No. 2000-00481,⁴⁰ KU argues that Sterling Ventures' burden of proof is high because the landfill costs are presumed to be reasonable, as they were incurred under the authority of a CPCN.

With respect to the Trimble County Landfill, LG&E/KU request that the Commission affirm the Companies' existing authority for the landfill because it remains necessary to serve customers and is the least-cost feasible method of disposing of CCR generated by the Trimble County Generating Station. As part of their economic evaluation of possible alternatives in their 2009 Environmental Compliance Plans, LG&E/KU identified 26 potential CCR storage options, which included on-site and off-site alternatives.⁴¹ The analysis then narrowed those options to three on-site alternatives and one off-site alternative and revealed that the Trimble County Landfill was the least cost option, with the off-site alternative being \$385 million less favorable on a PVRR basis.⁴² Like the Ghent Landfill, LG&E/KU stated that obtaining a CCR storage solution was economically favorable by a wide margin and that the increases in

³⁸ *Id.*

³⁹ *Id.* at 10–11.

⁴⁰ Case No. 2000-00481, *The Application of Northern Kentucky Water District (A) For Authority to Issue Parity Revenue Bonds in the Approximate Amount of \$16,545,000; and (B) A Certificate of Convenience and Necessity for the Construction of Water Main Facilities* (Ky. PSC Aug. 30, 2001).

⁴¹ Voyles Testimony at 4–5.

⁴² See Case No. 2009-00197, *Kentucky Utilities Company* (Ky. PSC filed June 30, 2009), Application, Direct Testimony of Charles R. Schram at 11–12.

the cost of phase one of the Trimble County Landfill did not alter the Companies' view that obtaining a CCR storage solution would be more economical than retiring the Trimble County Generating Station and replacing the capacity. In support of that view, LG&E/KU conducted an economic analysis comparing the Trimble County Landfill to retiring the Trimble County Generating Station and replacing those units with gas-fired capacity ("Retire and Replace Analysis"). The landfill and retirement alternatives were evaluated under three gas price scenarios with limits on CO₂ emissions consistent with the 2014 Clean Power Plan proposal.⁴³ The Retire and Replace Analysis showed that the Trimble County Landfill was between \$781 million (low gas price) to \$1.5 billion (high gas price) less costly on a PVRP basis than retiring the Trimble County Generating Station.⁴⁴

LG&E/KU maintain that, of its units with flue gas desulfurization, selective catalytic reduction, and baghouse, the two coal-fired units at the Trimble County Generating Station have among the lowest dispatch costs in the Companies' generating fleet. The Companies state that Trimble County Unit 2 has the lowest CO₂ emissions compared to their other coal units,⁴⁵ and therefore those units are very valuable to the Companies' customers. LG&E/KU points out that the ash ponds at the Trimble County Generating Station will be unable to operate beyond May 1, 2019, due to the CCR Rule.⁴⁶ LG&E/KU note that without the construction of the Trimble County CCRT and

⁴³ Sinclair Testimony at 8.

⁴⁴ *Id.* at 8–9.

⁴⁵ LG&E/KU's Response to Commission Staff's Post-Hearing Request for Information, Item 1.a.

⁴⁶ Sinclair Testimony at 16.

adequate disposal for the CCR by May 1, 2019, it is highly unlikely that the Companies would be able to fully operate the Trimble County Generating Station; Unit 1 lacks the facilities to prepare its bottom ash for dry transport and, without the landfill, Unit 2's bottom ash would need to be either beneficially used or trucked to an off-site landfill.⁴⁷ The estimated cost to customers of being unable to operate Trimble County Unit 1 and of having limited operations of Trimble County Unit 2 would be \$85 million for the 12 months beginning May 1, 2019, and would continue until a CCRT and long-term disposal alternative became available.⁴⁸

LG&E/KU contend that the Trimble County Landfill also provides the least cost when compared to Sterling Ventures' proposal. Although noting that Sterling Ventures has not made an actual offer or a proposal to the Companies concerning the disposal and storage of the Trimble County Generating Station's CCR, LG&E/KU assert that their economic analyses of possible Sterling Ventures alternatives show that the Trimble County Landfill results in a lower PVRR across multiple regulatory, gas-price, fuel-burn, and beneficial reuse scenarios.⁴⁹ In its July 16, 2015 evaluation of Sterling Ventures' alternative ("July 2015 Analysis"), which takes into account assumptions that were favorable to Sterling Ventures, the Trimble County Landfill was found to be \$49 million (mid gas and current beneficial use level) to \$55 million (high gas and no beneficial use) less costly to LG&E/KU customers over a 30-year period.⁵⁰ LG&E/KU also performed a 66-year PVRR analysis to address Sterling Ventures' concern that a 30-year analysis

⁴⁷ *Id.*

⁴⁸ *Id.* at 17–19.

⁴⁹ Voyles Testimony at 13.

⁵⁰ Sinclair Rebuttal at 5–7.

distorts the results.⁵¹ The 66-year PVRR analysis found the Trimble County Landfill to be between \$43 million (mid gas and low gas and current beneficial use level) and \$55 million (high gas and no beneficial use) less costly than the Sterling Ventures' alternative.⁵²

LG&E/KU also conducted an analysis which took into account Sterling Ventures' cost assumptions for a barge-unloading site in Warsaw, Kentucky, which is approximately ten miles from the Sterling Venture mine ("September 2015 Analysis").⁵³ LG&E/KU's February 2015 Analysis included a barge-unloading facility at Steele Bottom, Kentucky, which amounted to approximately \$261 million.⁵⁴ The Steele Bottom facility was assumed to have barge unloading equipment designed to help minimize fugitive dust concerns, as well as a pipe conveyor and back-up haul road from the barge-unloading station to Sterling Ventures' mine in order to address any dusting concerns and to minimize transportation risk.⁵⁵ Under Sterling Ventures' Warsaw barge-unloading scenario, the total cost would be approximately \$167 million, or \$94 million less than LG&E/KU's Steele Bottom scenario, due to the removal of costs associated with the pipe conveyor, back-up haul road, and site preparation and permitting items.⁵⁶ Whereas the Steele Bottom scenario would convey CCR by a pipeline conveyor system, the Warsaw scenario would transport CCR from the barge-

⁵¹ *Id.* at 7.

⁵² *Id.*

⁵³ *Id.* at 8–13.

⁵⁴ *Id.* at 8–9.

⁵⁵ *Id.*

⁵⁶ *Id.*

unloading facility to Sterling Ventures' mine by trucks. Under the Warsaw scenario, LG&E/KU's economic analysis indicated that the Trimble County Landfill was the least-cost alternative between \$3 million (mid gas and current beneficial use level) and \$23 million (high gas and no beneficial use) on a PVRR basis over a 30-year analysis period and between \$6 million (mid gas and current beneficial use level) and \$30 million (high gas and no beneficial use) on a PVRR basis over a 66-year analysis period.⁵⁷ LG&E/KU argue that beyond being non-economical, Sterling Ventures' preferred Warsaw barge-unloading site is very risky, considering that such a system would require millions of tons of CCR to be transported on the Ohio River where the CCR would then be unloaded to a facility close to Gallatin County schools and then loaded on to trucks that would make up to 168 round trips per day over approximately ten miles past residential neighborhoods for more than 30 years.⁵⁸

Characterizing Sterling Ventures' alternative as being rife with risk and uncertainty, LG&E/KU maintain that Sterling Ventures' proposal is not only non-economical as compared to the Trimble County Landfill, but that the proposal is also not feasible. LG&E/KU contend that the placement and storage of CCR in Sterling Ventures' limestone mine would not constitute beneficial use under the CCR Rule.⁵⁹ In order to be considered beneficial use, the CCR Rule defines that term as follows:

Beneficial use of CCR means the CCR meet all of the following conditions:

(1) The CCR must provide a functional benefit;

⁵⁷ *Id.* at 12–13.

⁵⁸ *See* Voyles Testimony at 15. *See also* Voyles Rebuttal at 20.

⁵⁹ Rebuttal Testimony of Richard J. Kinch ("Kinch Rebuttal") at 20–21.

(2) The CCR must substitute for the use of a virgin material, conserving natural resources that would otherwise need to be obtained through practices, such as extraction;

(3) The use of the CCR must meet relevant product specifications, regulatory standards or design standards when available, and when such standards are not available, the CCR is not used in excess quantities; and

(4) When unencapsulated use of CCR involving placement on the land of 12,400 tons or more in non-roadway applications, the user must demonstrate and keep records, and provide such documentation upon request, that environmental releases to groundwater, surface water, soil and air are comparable to or lower than those from analogous products made without CCR, or that environmental releases to groundwater, surface water, soil and air will be at or below relevant regulatory and health-based benchmarks for human and ecological receptors during use.⁶⁰

Under Sterling Ventures' proposal, CCR from LG&E/KU's Trimble County Generating Station would be placed within the voids left by mined-out sections of Sterling Ventures' limestone mine. According to Sterling Ventures, by utilizing the CCR to fill the mine voids in lieu of other materials to facilitate ventilation within the mine, Sterling Ventures would be beneficially using the CCR that would otherwise be placed in the Trimble County Landfill. Sterling Ventures also contends that placement of CCR in its mine would enhance mine ventilation by assisting in directing airflows, which would also result in reducing the volume of the mined area needing to be ventilated and energy savings from a decrease need for mine fans to direct air flow. Once the CCR is trucked to the mine from a barge-unloading facility, Sterling Ventures envisions three methods to transport the CCR from the surface to the interior of the mine: 1) dumping the CCR through a shaft from the surface to the mine void; 2) hauling the material

⁶⁰ 80 C.F.R. 21469, April 17, 2015.

underground using articulated trucks on the current mine ramps; or 3) hauling the material underground using over-the-road trucks on a new ramp, which would be constructed with a 10 percent slope.

LG&E/KU argue that Sterling Ventures' alternative does not meet the first three criteria for beneficial use.⁶¹ First, LG&E/KU assert that Sterling Ventures' plan failed to provide a legitimate functional benefit because the volume of CCR (up to 33.4 million cubic yards) is out of line with the need for ventilation control, there appears to be a replacement of existing ventilation controls, and the dusting nature of the material and placement could pose greater ventilation burdens.⁶² LG&E/KU also assert that Sterling Ventures' plan does not comply with the second beneficial use criterion because the placement of up to 33.4 million cubic yards in the mine is not a legitimate replacement for the minute volume of material that Sterling Ventures adds to the mine for ventilation control, the overall cost of placing the volume of material in the mine would far exceed the cost of standard ventilation controls such as a concrete baffle or plastic curtains, and the energy usage of transporting and placing up to 33.4 million cubic yards of CCR would vastly exceed the claimed ventilation energy savings.⁶³ In fact, LG&E/KU aver that unencapsulated placement of CCR in Sterling Ventures' mine would increase fugitive dusting and equipment fumes, resulting in additional ventilation needs.⁶⁴ Lastly, LG&E/KU claim that Sterling Ventures' plan fails to comply with the third criterion in that

⁶¹ LG&E/KU contend that there was insufficient information to be able to arrive at a firm conclusion with respect to the fourth criterion.

⁶² Kinch Rebuttal at 10–13.

⁶³ *Id.* at 13–16.

⁶⁴ Rebuttal Testimony of John E. Feddock ("Feddock Rebuttal") at 7–10.

in order for Sterling Ventures to achieve the desired functional benefit, at most a very small percentage of CCR could be part of some structure that provides air-flow benefit; beyond that, the vast majority of the CCR would not provide a functional benefit and would be slated for disposal.⁶⁵ LG&E/KU maintain that Sterling Ventures' plan to fill 90 percent of the mine voids is not a process focused on improving ventilation to the active limestone mining areas, is not a legitimate replacement for standard ventilation controls, and involves the use of CCR in massive excess.⁶⁶ Thus, LG&E/KU contend that Sterling Ventures' proposal would be considered as disposal under the CCR Rule and, therefore, would be subject to, among other things, a liner, groundwater monitoring, and closure requirements imposed by the CCR Rule.

LG&E/KU assert that Sterling Ventures' reliance on obtaining a state beneficial reuse permit to store both gypsum from the Ghent Generating Station and CCR from the Trimble County Generating Station is misplaced, given that the CCR Rule is self-implementing, the enforcement is provided by citizen suits, and the industry is, therefore, subject to dual state and federal enforcement regulatory structure.⁶⁷

In addition to the CCR Rule risk, LG&E/KU argue that Sterling Ventures' mine does not have the required storage capacity to support the placement of tremendous volumes of CCR that will be produced,⁶⁸ Sterling Ventures lacked experience and knowledge of handling and storing CCR;⁶⁹ Sterling Ventures failed to provide specific

⁶⁵ Kinch Rebuttal at 16–18.

⁶⁶ *Id.* at 18.

⁶⁷ *Id.* at 5–8.

⁶⁸ Feddock Rebuttal at 13–16.

⁶⁹ Sterling Ventures' Response to Commission Staff's First Requests for Information, Item 5.

plans for how and where it would place CCR in its mine;⁷⁰ and Sterling Ventures' plan to transport the CCR from the barge unloading facility to the mine by truck, which would make 168 round trips per day on a narrow two-lane road within close proximity to Gallatin County schools and residential homes, is unrealistic.⁷¹ LG&E/KU further point out that Sterling Ventures failed to take into account any reasonable consideration to address contingencies such as Sterling Ventures' inability to perform, an extended interruption in transportation, equipment breakdown, or other temporary event that would prevent CCR from being placed in Sterling Ventures' mine.⁷² Although they did not attempt to quantify these risks, LG&E/KU contend that such risks are unacceptable; would expose the Companies and their customers to increased operation costs as well as stranded investment costs, which according to LG&E/KU could be up to \$200 million;⁷³ and would significantly constrain the reliable operations of their Ghent and Trimble County Generating Stations.⁷⁴

STERLING VENTURES' ARGUMENTS

Sterling Ventures recommends the Commission deny LG&E/KU's request to affirm the Companies' CPCN authorization to construct the Trimble County Landfill, arguing that LG&E/KU have failed to pursue the least-cost reasonable alternative to constructing the Trimble County Landfill.⁷⁵ Sterling Ventures asserts that the Ghent

⁷⁰ Sterling Ventures' Response to LG&E/KU's Supplemental Request for Information, Item 5.

⁷¹ See Voyles Testimony at 15. See also Voyles Rebuttal at 20.

⁷² Sinclair Testimony at 11–12.

⁷³ Sinclair Rebuttal, Table 3 at 9.

⁷⁴ Sinclair Testimony at 11–13.

⁷⁵ Testimony of John W. Walters, Jr. ("Walters Testimony") at 25–26.

Landfill is not the least-cost alternative, and the costs associated with that landfill should be capped under LG&E/KU's environmental cost recovery ("ECR") mechanism.⁷⁶

Regarding the Trimble County Landfill, Sterling Ventures contends that LG&E/KU failed to provide a thorough and complete economic analysis of that landfill. Sterling Ventures avers that LG&E/KU's economic analyses, other than the February 5, 2015 analysis and the Retire and Replace Analysis submitted as part of the LG&E/KU's Joint Application in Case No. 2015-00156, were done in response to Commission Staff's data request, i.e., the July 2015 Analysis, or due to Sterling Ventures' correcting certain errors in the Companies' projections, i.e., the September 2015 Analysis. Sterling Ventures noted that the PVRR differential comparing the on-site proposal to the off-site Sterling Ventures alternative decreased with each iteration. For example, the February 2015 Analysis showed that the Trimble County Landfill was the least-cost option from \$116 million to \$163 million on a PVRR basis when factoring in the companies' 75 percent share of the costs; whereas the September 2015 Analysis revealed a PVRR differential between the two options of \$3 million and \$23 million based on a 30-year study period. Sterling Ventures contends that the decrease is due to the requirement that LG&E/KU take into account the building of the barge-unloading facility in Warsaw, Kentucky, rather than at Steele Bottom, which eliminated approximately \$94 million in up-front capital cost.⁷⁷ Sterling Ventures argues that other reasonable adjustments to the September 2015 Analysis would clearly result in Sterling Ventures' option being the least-cost alternative. Sterling Ventures points to LG&E/KU's assumed cost of building

⁷⁶ *Id.* at 1.

⁷⁷ Sinclair Rebuttal at 8–9.

a conveyor and haul road between the CCRT facility and the Trimble County Landfill (approximately \$33 million) being the same cost as a conveyor and haul road between the CCRT facility and a river barge on-load facility. However, Sterling Ventures points out that the distance from the CCRT facility to the landfill is three times longer the distance between the CCRT and a river barge on-load facility. Sterling Ventures argues that reducing LG&E/KU's assumed cost of the conveyor and haul road by two-thirds, and adjusting the corresponding overhead costs by 3.5 percent of the cost reduction, results in Sterling Ventures' alternative being \$16 million less expensive on a PVRR basis than the Trimble County Landfill.

Sterling Ventures also contends that the LG&E/KU analyses comparing Sterling Ventures' alternative are fundamentally flawed because they assume that the Trimble County Landfill must have a maximum capacity of 33.4 million cubic yards over the life of the landfill. Sterling Ventures maintains that it is unreasonable for LG&E/KU to assume that there would be little or no construction activity such that there would be no opportunity for them to engage in any beneficial use activity over the next 37 years, or the projected lifetime of the landfill, yet electric demand over that same time period would require maximum fuel burn. Sterling Ventures further criticizes LG&E/KU for using a different capacity requirement for the Trimble County Landfill in the Retire and Replace Analysis, which utilized the current level of beneficial reuse, resulting in a capacity requirement under that analysis of 21.5 million cubic yards. Sterling Ventures argues that LG&E/KU should have used the same data assumptions across all of its analyses such that a reasonable and objective comparison could be made of the results.

Sterling Ventures contends that LG&E/KU have exaggerated the redundancy and feasibility concerns of its proposal, noting that several options exist to address any potential interruptions to the availability of Sterling Ventures' mine. First, Sterling Ventures points out that the new gypsum pond at Trimble County could be temporarily utilized. Sterling Ventures offers that it could transport the CCR to the Ghent Landfill, which would have the necessary capacity to assume additional volumes of CCR. Sterling Ventures argues that the opportunity to utilize its mine coupled with the availability of the Ghent Landfill, if needed, results in the Trimble County Landfill's being unnecessary and wasteful.

As to the social impacts raised by LG&E/KU, Sterling Ventures claims that the environmental impacts associated with the Trimble County Landfill are greater than any of the purported transportation risks engendered by the Sterling Ventures alternative. Sterling Ventures notes that the increased truck traffic in Warsaw would be relatively minimal and that the route from the barge-unloading facility to the mine is away from the nearby schools, businesses and residential areas. In contrast, Sterling Ventures contends that the Trimble County Landfill would negatively and permanently impact a substantial portion of "840 acres of land, 87,254 linear feet of high quality streams, 2.6 acres of wetlands, and .05 acres of open water ponds,"⁷⁸ which are all adjacent to the Ohio River.

Sterling Ventures avers that the proposed use of CCR in its mine satisfies the beneficial use criteria under the CCR Rule.⁷⁹ Sterling Ventures posits that eliminating

⁷⁸ Direct Testimony of J. Steven Gardner at 6.

⁷⁹ Walters Testimony at 21.

air voids in the mine provides a functional benefit of effectively and efficiently directing air to working areas of the mine.⁸⁰ It also contends that the CCR substitutes for concrete, steel and other materials used to construct air stoppings in the mine and substantially reduces the amount of electricity required to run ventilation fans, which further reduces the environmental consequences of additional electric generation.⁸¹ Sterling Ventures asserts that there are no product specifications relevant to its use of beneficial use of CCR, and that its intention to maintain an active mining operation prevents excess quantities of CCR beyond what is necessary to fill voids in mined-out, abandoned areas of its mine.⁸² Lastly, Sterling Ventures maintains that, given the geology of the mine and the layer between the surface and the mining levels, there would be no environmental contact with groundwater, surface water, soil, or air once CCR is placed in its mine.⁸³

With respect to the Ghent Landfill, Sterling Ventures contends that the PVRR savings for using its mine, as compared to the on-site landfill, would have been approximately \$41 million with the added benefit of delaying the construction of the future two phases of that landfill, which would increase the PVRR savings.⁸⁴ Sterling Ventures reasons that savings would result from the fact that KU would not have

⁸⁰ *Id.*

⁸¹ *Id.*

⁸² *Id.* at 21–22.

⁸³ *Id.* at 22.

⁸⁴ *Id.* at 9–10.

needed to build the gypsum-related components of the Ghent Landfill because all of the gypsum could have been transported and stored in Sterling Ventures' mine.⁸⁵

KIUC'S ARGUMENTS

KIUC recommended that the Commission affirm LG&E/KU's CPCN authority to construct the Trimble County Landfill and the associated CCRT facility. KIUC asserts that the evidence presented in this matter shows that the landfill is the least-cost option for disposing of the CCR produced by the Trimble County Generating Station. KIUC further asserts that the evidence presented also shows that Sterling Ventures' alternative is significantly more costly and riskier than the Trimble County Landfill. KIUC notes that LG&E/KU's multiple economic analyses reveal the Trimble County Landfill to be less costly than Sterling Ventures' option, which, according to KIUC, was not surprising, given that the fixed and variable operating and maintenance costs associated with Sterling Ventures' proposal were more than two times and seven times, respectively, that of the Trimble County Landfill; and Sterling Ventures' option required more capital outlay by 2018 than the Trimble County Landfill.

KIUC avers that LG&E/KU's economic evaluations were conducted in a reasonable manner, given that the Companies' made several assumptions that were favorable to Sterling Ventures' option, including assuming that Sterling Ventures' mine would have sufficient capacity for the entire study period; that there would be no environmental constraints on Sterling Ventures' ability to dispose and store CCR in its mine; and that the mine would remain operational through 2044. Had LG&E/KU reflected certain risk assumptions associated with Sterling Ventures' alternative, such as \$135 million for a contingency storage plan necessary to address any interruption to

⁸⁵ *Id.*

the off-site plan, the Trimble County Landfill would become even more attractive, KIUC contends.

KIUC contends that the Sterling Ventures option presents more risk than the Trimble County Landfill. Echoing LG&E/KU's concerns regarding the transport of CCR by truck from Sterling Ventures' preferred barge-unloading facility in Warsaw, KIUC characterizes that option as being impracticable. KIUC points to the logistical concerns such as the 168 round trips to be made by trucks transporting CCR from the barge-unloading facility to Sterling Ventures' mine. KIUC argues that this would amount to a truck passing by schools, businesses and residences approximately every two minutes each day, increasing the volume of traffic, and raising the risks of accidents and amplifying the amount of diesel fumes along the route.

KIUC also asserts that the Sterling Venture proposal would introduce inordinate legal and financial risks. KIUC indicates that it is uncertain whether Sterling Ventures, having been in business for only 11 years and dependent on future market conditions, has the financial wherewithal to perform contractual obligations which could stretch over multiple decades, given that Sterling Ventures has not divulged any relevant and critical financial information regarding its operations. In addition, KIUC maintains that it is debatable whether Sterling Ventures' alternative would comply with relevant environmental laws and regulations and whether disposal in its mine would be deemed beneficial and not be subject to the requirements of the CCR Rule. KIUC notes that Sterling Ventures concedes that such legal uncertainty exists and admits that it would not place CCR in its mine if it were met with opposition from environmental organizations or state officials. KIUC contends that this is a significant unknown and

exposes LG&E/KU to substantial risks. In the event that any of these risks materialize, KIUC asserts, LG&E/KU would incur substantial sunk costs for the investments in infrastructure needed to effectuate Sterling Ventures' option. On the other hand, KIUC avers that Sterling Ventures would benefit greatly from its proposal, given that the nominal value of a 30-year contract to Sterling Ventures ranges from \$288 million and \$303 million, depending on generation levels, and could reach as high as \$456 million if the Companies engage in no beneficial use for their CCR.⁸⁶

DISCUSSION

Given that the issues in this investigation involve a re-examination of the need for, and cost of, the Trimble County and Ghent Landfills, it is necessary for the Commission to analyze these issues under the framework of the CPCN statute, KRS 278.020(1). The Commission's standard of review regarding a CPCN is well settled. No utility may construct or acquire any facility to be used in providing utility service to the public until it has obtained a CPCN from this Commission.⁸⁷ To obtain a CPCN, the utility must demonstrate a need for such facilities and an absence of wasteful duplication.⁸⁸

"Need" requires:

[A] showing of a substantial inadequacy of existing service, involving a consumer market sufficiently large to make it economically feasible for the new system or facility to be constructed or operated.

⁸⁶ LG&E/KU's Response to Information Requested at Hearing held on September 14 and September 15, 2015, Item 10.

⁸⁷ KRS 278.020(1).

⁸⁸ *Kentucky Utilities Co. v. Pub. Serv. Comm'n*, 252 S.W.2d 885 (Ky. 1952).

[T]he inadequacy must be due either to a substantial deficiency of service facilities, beyond what could be supplied by normal improvements in the ordinary course of business; or to indifference, poor management or disregard of the rights of consumers, persisting over such a period of time as to establish an inability or unwillingness to render adequate service.⁸⁹

“Wasteful duplication” is defined as “an excess of capacity over need” and “an excessive investment in relation to productivity or efficiency, and an unnecessary multiplicity of physical properties.”⁹⁰ To demonstrate that a proposed facility does not result in wasteful duplication, we have held that the applicant must demonstrate that a thorough review of all reasonable alternatives has been performed.⁹¹ Selection of a proposal that ultimately costs more than an alternative does not necessarily result in wasteful duplication.⁹² All relevant factors must be balanced.⁹³ The statutory touchstone for ratemaking in Kentucky is the requirement that rates set by the Commission must be fair, just and reasonable.⁹⁴

Having reviewed the record and being otherwise sufficiently advised, the Commission finds that LG&E/KU have established that there is a continued need to

⁸⁹ *Id.* at 890.

⁹⁰ *Id.*

⁹¹ Case No. 2005-00142, *Joint Application of Louisville Gas and Electric Company and Kentucky Utilities Company for a Certificate of Public Convenience and Necessity for the Construction of Transmission Facilities in Jefferson, Bullitt, Meade, and Hardin Counties, Kentucky* (Ky. PSC Sept. 8, 2005).

⁹² See *Kentucky Utilities Co. v. Pub. Serv. Comm'n*, 390 S.W.2d 168, 175 (Ky. 1965). See also Case No. 2005-00089, *Application of East Kentucky Power Cooperative, Inc. for a Certificate of Public Convenience and Necessity for the Construction of a 138 kV Electric Transmission Line in Rowan County, Kentucky* (Ky. PSC Aug. 19, 2005).

⁹³ Case No. 2005-00089, *East Kentucky Power Cooperative, Inc.* (Ky. PSC Aug. 19, 2005), Final Order at 6.

⁹⁴ KRS 278.190(3).

address how CCR produced by the Trimble County Generating Station and the Ghent Generating Station will be treated, disposed, and stored. This need is particularly heightened under the CCR Rule, which establishes national regulations for the management and disposal of CCR, which includes fly ash, bottom ash, boiler slag, and flue gas desulfurization gypsum, by electric utilities in landfills and surface impoundments under Subtitle D of the Resource Conservation and Recovery Act. The need to manage and dispose of CCR is critical to the continued operation of the Ghent Generating Station and the Trimble County Generating Station, which is one of the most efficient base-load coal stations in the LG&E/KU fleet.⁹⁵

The Commission further finds that, despite the considerable increase in the phase one costs of the two subject Landfills, there is substantial evidence in the record to support the conclusion that the Trimble County Landfill and the Ghent Landfill are still the least-cost alternatives to meet the CCR disposal needs at the Trimble County Generating Station and the Ghent Station. We note that LG&E/KU performed at least five updated economic analyses that compared the on-site landfills to several versions of Sterling Ventures' alternatives and to retiring the Trimble County units and replacing that capacity. The economic analyses examined each alternative across a number of natural gas pricing, fuel consumption, and beneficial reuse scenarios utilizing conservative assumptions that tended to be favorable to Sterling Ventures' off-site alternative. Each and every analysis consistently showed that the two on-site landfills were more economical than the alternatives, including Sterling Ventures' option.

⁹⁵ See September 15, 2015 Hearing Video, Testimony of David Sinclair at 13:40:13. See also Sinclair Testimony at 11.

The Warsaw Analysis, which is the most recent of all of the analyses and the one that assumes the barge-unloading facility location preferred by Sterling Ventures, was the one analysis that had the smallest PVRR differential, yet this analysis still showed that the Trimble County Landfill was between \$3 million and \$23 million less costly on a 30-year PVRR basis than Sterling Ventures' option. Sterling Ventures takes issue with some of the cost assumptions in the Warsaw Analysis, arguing that a reasonable adjustment could be made to the costs associated with the conveyor and haul road, which would then tilt the economics in favor of its proposal by at least \$16 million. Assuming for the sake of argument that an adjustment should be made as Sterling Ventures suggests, the marginal PVRR differential does not outweigh the operational and environmental risks associated with Sterling Ventures' proposal.⁹⁶ Although these risks were not quantified as part of the economic analysis, we find these risks to be very real and pose significant cost consequences to the proposal. Those risks include, among other things, the transportation risk associated with barging the CCR a lengthy distance from the Trimble County Generating Station to the Warsaw barge-unloading facility; the sheer number of trips required to transport the CCR by truck through the city; limited details provided by Sterling Ventures as to the manner and method in which it would place and store the vast amount of CCR in its mine; the issue of whether the Sterling Ventures mine would have storage capacity sufficient to accommodate the volume of CCR generated by the Trimble County Generating Station; the issue of whether Sterling Ventures has the financial capabilities to carry out its obligations under

⁹⁶ We note that LG&E/KU were required to, and did, provide an environmental analysis and impact proposal of the Trimble County Landfill in addition to a cost analysis as part of the Companies' application with U.S. Army Corps of Engineers for a site permit under Section 404 of the federal Clean Water Act.

a long-term contractual arrangement in light of its refusal to provide audited financial statements; and the lack of detailed cost-effective contingencies that would allow for the continued operation of the Trimble County Generating Station in the event Sterling Ventures is unable to transport and/or place CCR in its mine.

Most significantly, the Commission is unable to find from the evidence of record that the placement and storage of CCR in the Sterling Ventures' mine would be considered beneficial use under the CCR Rule and would, therefore, be exempt from the disposal requirements of that regulation. We note that all four elements set forth in the beneficial use provision of the CCR Rule must be met before Sterling Ventures' proposal could be considered beneficial use. LG&E/KU presented substantial and credible evidence that Sterling Ventures' option is disposal under CCR Rule and not beneficial use.⁹⁷ The record contains insufficient evidence to support a finding that the self-implementation aspect of the CCR Rule and the exposure of Sterling Ventures' novel and first-of-its-kind plan to a citizen suit is a reasonable risk to be assumed by LG&E/KU and their ratepayers, since the impact of such litigation would result in potentially substantial stranded costs, which would ultimately be borne by those ratepayers.

Even when viewing the evidence in the light most favorable to Sterling Ventures with respect to the economics of the alternatives at issue herein, the Commission finds that the feasibility risks inherent in Sterling Ventures' proposal, either individually or collectively, outweigh any arguable benefits associated with that alternative.

⁹⁷ LG&E/KU's position is supported by their witness, Richard J. Kinch, a former official with the U.S. Environmental Protection Agency who was responsible for developing the language of the beneficial use provision of the CCR Rule.

Notwithstanding our finding that the subject landfills are needed and least-cost, the Commission will affirm the grant of our CPCN authority as to the first phase only for the Trimble County and Ghent Landfills and related facilities, including the CCRTs. We note that the cost for the first phase of the Ghent Landfill increased from \$204 million to \$341 million. The cost for the first phase of the Trimble County Landfill increased from \$70.5 million to \$321 million. These are significant cost increases that have occurred over a relatively short period of time. For this reason and consistent with our recent ruling in Case No. 2015-00089,⁹⁸ we will affirm the grant of CPCN only for the first phases of the Trimble County Landfill and the Ghent Landfill. LG&E/KU will be required to obtain prior Commission approval to construct the remaining phases of these two landfills.

IT IS THEREFORE ORDERED that:

1. LG&E/KU's request to affirm the Companies' existing CPCN and ECR authority for the Trimble County Landfill and related facilities, including the CCRT, is granted for phase one of that landfill only.
2. The existing CPCN and ECR authority for the Ghent Landfill and related facilities, including the CCRT, is affirmed for phase one of that landfill only.
3. Sterling Ventures' request to revoke LG&E/KU's CPCN to construct the Trimble County Landfill is denied.
4. Sterling Ventures' request to limit KU's ECR recovery of the Ghent Landfill is denied.

⁹⁸ Case No. 2015-00089, *Application of Duke Energy Kentucky, Inc. for a Declaratory Order that the Construction of a New Landfill Constitutes an Ordinary Extension in the Usual Course of Business or, in the Alternative, for a Certificate of Public Convenience and Necessity* (Ky. PSC July 24, 2015), granting Duke Energy Kentucky, Inc. a CPCN to construct only the first phase of a multi-phase landfill.

5. LG&E/KU shall file an appropriate application and seek Commission approval for a CPCN prior to commencing construction on each of the phases 2 and 3 of the Ghent Landfill and phases 2 through 4 of the Trimble County Landfill.

6. LG&E/KU shall submit status update reports on the construction of the first phase of the Trimble County Landfill every three months from the date of this Order, which shall include, among other things, detailed information regarding the amount spent to date, the amount spent during the reporting period, the projected budget for the next reporting period, the total projected costs for the first phase of the landfill, construction activities that occurred during the reporting period, and the construction activities for the next reporting period.

7. Any documents filed pursuant to ordering paragraph 6 of this Order shall reference the number of this case and shall be retained in the utilities' general correspondence file.

8. The Executive Director is delegated authority to grant reasonable extension of time for the filing of any documents required by ordering paragraph 6 of this Order upon LG&E/KU's showing of good cause for such extension.

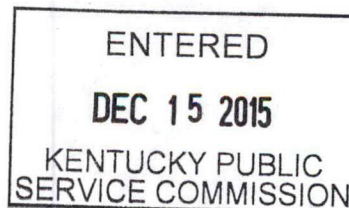
9. This investigation is closed and removed from the Commission's docket.

By the Commission

ATTEST:



Executive Director



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